

Name

Course you want to take next year

Geometry 201 honors 202 2-level

Math Analysis (222-2 level) (211-honors)

Any seat request (not people)

ex: Front 2 rows or back row

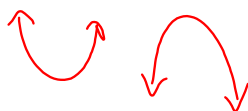
Ch 6 Quadratic Functions and Inequalities

6.1 Graphing Quad. Fn.s

$$f(x) = ax^2 + bx + c$$

$$a \neq 0$$

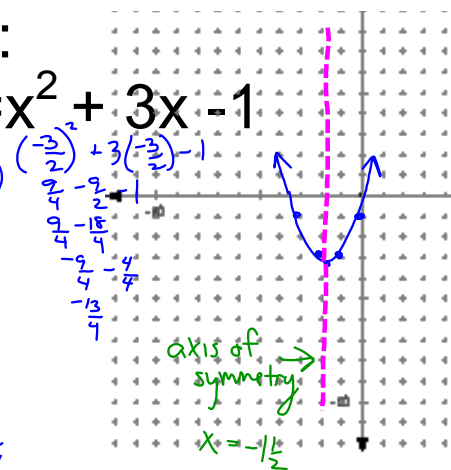
parabola



ex 1:

$$f(x) = x^2 + 3x - 1$$

x	f(x)
-3	-1
-2	-3
-1	-3
0	-1
$-\frac{1}{2}$	$-3\frac{1}{4}$



Vertex $\left(\frac{-b}{2a} \right)$

$$f(x) = ax^2 + bx + c$$

Equation of axis of symmetry

$$x = -\frac{b}{2a}$$

y-intercept

$$(0, c)$$

ex:2

$$f(x) = x^2 - 4x + 2$$

x	f(x)
2	-2

$$V\left(\frac{-b}{2a}\right)$$

$$\frac{4}{2}$$

$$V(2, -2)$$

$$V(2, -2)$$

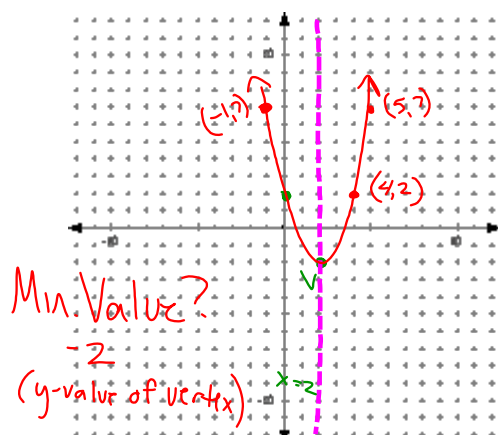
a.o.s. $x = 2$

y-int $(0, 2)$

other $(-1, 7)$

mirror $(4, 2)$

mirror $(5, 7)$



Minimum pt



Maximum pt



Do $-x^2$

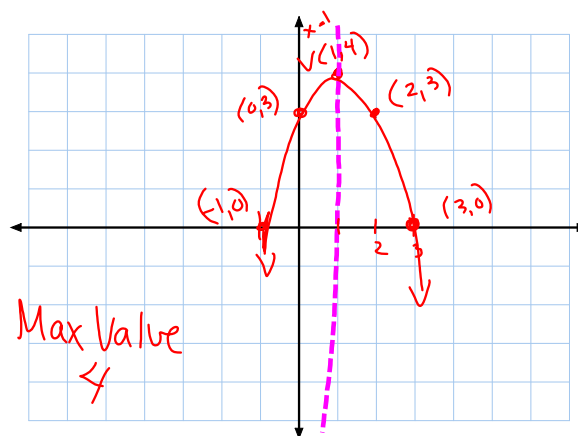
$$f(x) = -x^2 + 2x + 3$$

$$V\left(\frac{-b}{2a}\right)$$

$$\frac{-2}{2(-1)} = \frac{-2}{-2} = 1$$

$$V(1, 4) = -(1)^2 + 2(1) + 3 = 4$$

a.o.s $x = 1$
 y-int $(0, 3)$
 other $(3, 0)$
 $-9 + 2(3) + 3$



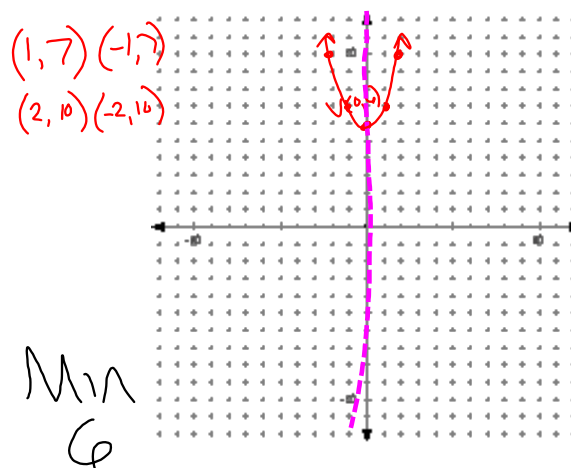
ex: $f(x) = x^2 + 6$

$$V\left(\frac{-b}{2a}\right)$$

$$\frac{0}{2} = 0$$

$$V(0, 6)$$

a.o.s $x = 0$
 y-int $(0, 6)$



HW

p291

14-22 even

33-38